

Ewing, Nebr.; De Smet, S. Dak.; Meadow Valley, Wis. 29th, Logansport, Ind.; Fayette and Rock Rapids, Iowa; Medford and Saint Charles, Minn.; Watertown, S. Dak.; Ashland,

Black River Falls, Grantsburg, Medford, Neillsville, Valley Junction, and Weston, Wis. 30th, Allegan and Berrien Springs, Mich.; Rea, Mo.

PRECIPITATION (expressed in inches and hundredths).

The distribution of precipitation over the United States and Canada for August, 1893, as determined from reports of more than 2,000 stations, is exhibited on Chart III. In the table of miscellaneous meteorological data the total precipitation and the departure from the normal are given for regular stations of the Weather Bureau. The figures opposite the names of the geographical districts in the columns for precipitation and departure from the normal show, respectively, the averages for the several districts. The normal for any district may be found by adding the departure to the current mean when the precipitation is below the normal and subtracting when above.

The precipitation for August is usually greatest along the eastern coast of the Gulf of Mexico, where it exceeds 8.00, and the normal amount exceeds 6.00 along the immediate south Atlantic and middle Gulf coasts. In the Atlantic coast states, all areas in the western lake region and upper Mississippi valley, and in the mountain regions of central New Mexico and southeastern Arizona 4.00 to 6.00 is usually recorded. In all districts east of the Rocky Mountains, and in areas in the southern plateau region, the precipitation for August generally exceeds 2.00. Over the western plateau and Pacific coast districts the monthly average is less than 1.00, save on the extreme north Pacific coast, where it exceeds 2.00. Over a great part of the western plateau region, and in the middle and south Pacific coast states, there is usually an almost entire absence of precipitation in August.

The precipitation for August, 1893, was greatest in South Carolina, and exceeded 10 throughout the coast region of Georgia, half of South Carolina, the interior and southern half of North Carolina; small regions of 10-inch rainfall occur in the center of the Florida Peninsula, in southeastern Alabama, in southern Louisiana, western New Jersey, northern New York, and northern Tennessee. Less than 2 fell in Michigan, southern Wisconsin, eastern Iowa, central Missouri, western Tennessee, western Ohio, Kentucky, Indiana, and Illinois, as also over the southern half of Texas, the Rocky Mountain plateau, and the Pacific coast. No rain whatever seems to have fallen in central and northern California, northern Nevada, western Idaho, eastern Washington, and Oregon.

DEPARTURES FROM NORMAL PRECIPITATION.

Rainfall was in excess of the normal over the greater part of the south Atlantic states, and was about twice the usual quantity on the South Carolina coast. An excess of from 1 to 4 is generally reported from New York and the New England States. A deficiency of 2 or 3 in the Mississippi Valley, Ohio Valley, and upper lake region. An excess of 1 or 2 is reported from northern Texas, but a deficiency from southern Texas.

Considered by districts the monthly precipitation averaged about normal in the middle Atlantic and east Gulf states, the Ohio Valley and Tennessee, over the northern plateau, and on the middle and south Pacific coasts. In districts where the precipitation was in excess, the average percentage of the normal was about as follows: southern plateau region, 164; southeast slope of the Rocky Mountains, 142; south Atlantic states, 133; middle plateau region, 124; lower lake region, 117; New England, 116. In districts where the precipitation was deficient the percentage of the normal was about as follows: upper Mississippi valley, 37; Key West, Fla., and on the north Pacific coast, 42; upper lake region,

47; Missouri Valley, 60; middle-eastern slope of the Rocky Mountains, 61; west Gulf states, 69; extreme northwest, 76; northeast slope of the Rocky Mountains, 80.

The following table shows for certain stations, as reported by voluntary observers, (1) the average precipitation for August for a series of years; (2) the length of record during which the observations have been taken and from which the average has been computed; (3) the total precipitation for August, 1893; (4) the departure of the current month from the average; (5) and the extremes for August during the period of observation and the years of occurrence:

State and station.	(1) Average for the month of August.	(2) Length of record.	(3) Total for August, 1893.	(4) Departure from average.	(5) Extremes for August.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
Arizona.	Inches.	Years.	Inches.	Inches.	Inches.		Inches.	
Fort Apache	3.84	17	3.43	- 0.41	9.33	1878	1.00	1888
Fort Mohave	0.64	1	1.	- 0.64	3.80	1873	0.00	1871, 1892
Whipple Barracks	2.91	22	4.30	+ 1.39	6.34	1878	0.24	1873
Arkansas.								
Keesees Ferry	5.41	17	3.02	- 2.39	11.53	1888	2.37	1891
California.								
Fort Bidwell	0.13	22	0.05	- 0.08	0.42	1880	0.00	†
Riverside	0.30	12	.....	.....	3.00	1884	0.00	*
Colorado.								
Las Animas	1.48	10	2.11	+ 0.63	3.75	1885	0.06	1889
Florida.								
Merritts Island	5.86	15	4.46	- 1.40	15.77	1880	1.15	1883
Georgia.								
Forsyth	5.11	19	13.45	+ 8.34	13.45	1893	2.50	1888
Iowa.								
Boise Barracks	0.22	19	0.00	- 0.22	1.65	1873	0.00	†
Fort Sherman	0.43	9	0.00	- 0.43	1.51	1892	0.00	†
Indiana.								
Lafayette	3.79	11	0.77	- 3.02	7.17	1890	0.77	1893
Indian Territory.								
Fort Supply	2.02	14	4.37	+ 2.35	5.32	1883	0.35	1874
Iowa.								
Cresco	3.11	20	1.20	- 1.91	8.34	1884	0.92	1889
Kansas.								
Independence	3.12	21	2.53	- 0.59	7.46	1885	1.33	1891
Salina	2.86	11	.....	.....	6.60	1887	0.30	1882
Louisiana.								
Grand Coteau	3.77	9	5.39	+ 1.62	8.07	1888	0.42	1883
Maine.								
Orono	3.78	22	3.90	+ 0.12	7.36	1885	0.53	1883
Maryland.								
Cumberland	3.11	22	3.74	+ 0.63	8.09	1882	0.31	1881
Michigan.								
Kalamazoo	2.71	17	0.75	- 1.96	8.94	1885	0.31	1889
Missouri.								
Sedalia	2.11	15	1.29	- 0.82	5.83	1888	0.29	1892
Montana.								
Fort Custer	1.10	12	0.00	- 1.10	2.55	1880	0.00	1893
Nebraska.								
Fort Robinson	1.94	10	1.46	- 0.48	3.32	1887	0.90	1886
Genoa (near)	2.63	17	1.46	- 1.17	5.81	1892	0.45	1881
Nevada.								
Browns	0.08	22	.....	.....	1.00	1874	0.00	*
Carson City	0.13	17	0.11	- 0.02	1.13	1890	0.00	*
New Hampshire.								
Hanover	3.50	22	4.85	+ 1.35	7.77	1885, 1890	0.42	1876
New Mexico.								
Deming	1.68	11	4.38	+ 2.70	4.38	1893	0.39	1892
Fort Wingate	2.06	22	0.60	- 1.46	5.90	1878	0.24	1888
New York.								
Cooperstown	3.62	22	7.59	+ 3.97	9.08	1885	0.63	1876
Plattsburg Barracks	3.24	22	5.76	+ 2.52	7.18	1892	0.37	1876
North Carolina.								
Lenoir	5.73	21	7.50	+ 1.77	10.20	1886	2.10	1877
Oklahoma.								
Fort Reno	2.99	10	10.25	+ 7.26	10.25	1893	0.34	1886
Fort Sill	3.17	21	4.70	+ 1.53	9.73	1888	T.	1874
Oregon.								
Bandon	0.57	14	0.01	- 0.56	2.16	1879	0.00	1888
Pennsylvania.								
Duberry	4.32	21	4.45	+ 0.13	8.77	1885	0.95	1883
Grampian	4.44	16	3.26	- 1.18	8.19	1888	1.66	1883
Wellsboro	5.11	14	4.59	- 0.52	15.25	1885	0.83	1889
South Carolina.								
Statesburg	4.45	12	14.29	+ 9.84	14.29	1893	1.38	1892
South Dakota.								
Fort Sully	1.92	22	0.55	- 1.37	5.26	1880	0.20	1882
Texas.								
Austin	2.13	21	2.10	- 0.03	6.45	1892	T.	1877
Silver Falls	2.10	7	3.63	+ 1.53	4.29	1888	0.00	1889

Departures from average precipitation—Continued.

State and station.	(r) Average for the month of August.	(a) Length of record.	(3) Total for August, 1893.	(4) Departure from average.	(5) Extremes for August.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
Terrace, Utah.	Inches. 0.16	Years. 21'	Inches. 0.00	— 0.16	Inches. 1.21	1878	Inches. 0.00	•
Vermont, Strafford.	3.76	20	5.78	+ 2.02	8.85	1890	1.40	1882
Virginia, Dale Enterprise.	4.20	13	5.06	+ 0.86	10.50	1882	1.26	1890
Washington, Fort Townsend.	1.74	19	0.16	— 1.58	2.52	1891	0.00	1885
West Virginia, Parkersburg.	3.96	8	3.12	— 0.84	6.71	1888	0.88	1887
Wisconsin, Embarrass.	4.94	22	.....	— 1.02	7.85	1881	0.40	1873
Madison.	2.44	22	1.42	— 1.02	6.83	1882	0.56	1881
Wyoming, Fort Washakie.	0.54	11	1.05	+ 0.51	2.06	1888	T.	1886

*Generally.

† Frequently.

PRECIPITATION, JANUARY TO AUGUST.

For the period January to August, 1893, inclusive, the total precipitation averaged about normal in the middle and south Atlantic states, New England, the Ohio Valley and Tennessee, the Lake region, the upper Mississippi and Missouri valleys, and the extreme northwest. Over the plateau regions and on the north and south Pacific coasts the precipitation was one-tenth to three-tenths greater than usual. In the Gulf States, at Key West, Fla., on the eastern slope of the Rocky Mountains, and on the middle Pacific coast six-tenths to nine-tenths of the usual amount of precipitation was reported for the period named.

YEARS OF GREATEST PRECIPITATION FOR AUGUST.

The precipitation for the current month was the greatest ever reported for August at Oswego, N. Y. (23 years); Forsyth, Ga. (19 years); Deming, N. Mex. (11 years); Statesburg, S. C. (12 years). The greatest precipitation for August on the north Pacific coast occurred in 1889; for the middle and lower Mississippi valleys in 1888, for the northern plateau region in 1887, in the upper Mississippi valley in 1885, on the east Gulf coast and in northern Florida in 1881, on the middle Pacific coast in 1879, and in Maine in 1877.

YEARS OF LEAST PRECIPITATION FOR AUGUST.

The precipitation for the current month was the least ever reported for August at Chicago, Ill. (23 years); Springfield, Ill. (15 years); La Crosse, Wis. (21 years); Boise Barracks, Idaho (20 years); Fort Sherman, Idaho (9 years); Lafayette, Ind. (11 years); Fort Custer, Mont. (12 years); Terrace, Utah (21 years). The least precipitation for August over the east part of the middle and southern plateau regions was noted in 1889, over the northern plateau region in 1888, on the north Pacific coast in 1885, along the Massachusetts and Maine coasts in 1883, in the extreme northwest in 1882, from the upper Ohio valley over Virginia and North Carolina in 1881, and in New York and western New England in 1876.

EXCESSIVE PRECIPITATION.

The following tables show, by states, the number of stations reporting monthly precipitation to equal or exceed 10.00; precipitation to equal or exceed 2.50 in 24 hours; and precipitation to equal or exceed 1.00 in 1 hour in August, 1893:

Monthly precipitation to equal or exceed 10.00.

State.	Number of stations.	State.	Number of stations.
South Carolina.....	34	Georgia.....	10
North Carolina.....	10	Florida.....	4

Monthly precipitation to equal or exceed 10.00—Continued.

State.	Number of stations.	State.	Number of stations.
New York.....	3	Louisiana.....	1
Alabama.....	2	Mississippi.....	1
New Jersey.....	2	Tennessee.....	1
Oklahoma.....	2		

Precipitation to equal or exceed 2.50 in 24 hours.

State.	Number of stations.	Dates.	State.	Number of stations.	Dates.
South Carolina ...	41	1, 2, 2-3, 3-4, 4-5, 5-6, 10-11, 13-14, 18, 22, 23, 23-24, 26-27, 27-28, 28, 28-29, 29, 29-30, 29-31, 30, 30-31, 23-24.	Louisiana	8	1, 3, 4-5, 10, 11-12, 13-14, 14-
New York	34	5, 6, 19-20, 23, 23-24, 24, 24-28, 29, 29.	Connecticut	7	4-5, 23-24, 24-25.
North Carolina ...	31	1, 1-2, 13-14, 14, 27, 28, 28, 30-31.	Iowa	7	11, 14-15, 15-
Pennsylvania.....	23	19, 19-20, 20, 23, 24, 24, 28-29, 29.	Kansas	6	9, 14, 14-15, 15, 19-20.
Massachusetts ...	20	4-5, 6, 7, 6-7, 20-21, 24.			20.
Georgia.....	18	1, 4, 5-6, 6, 18, 27, 28, 30-31, 31.	Mississippi	6	2, 5, 6, 12, 12-13, 13-14.
Florida	13	2, 2-3, 5, 9, 19, 20, 21, 22, 26-27, 27.	West Virginia	6	28, 28-29.
Nebraska	13	14-15, 15.	Arkansas	5	10-11, 11, 11-12, 12,
Virginia	12	3-4, 4, 4-5, 28, 28-29, 31.	Ohio	5	3-4, 20, 28-29, 29.
Minnesota	11	9, 9-10, 23-24, 24.	Texas	5	4-4.5, 7, 9, 15.
Missouri	10	11, 14-15, 15-16, 24.	Maryland	4	12, 28, 28-29.
Alabama	8	5, 10, 10-11, 11, 13, 13-14.	Tennessee	4	3-3.4, 17.
			Colorado	2	1.
			Indian Territory	2	2, 3.
			Oklahoma	2	8, 10.
			Vermont	2	7.
			Wisconsin	2	4, 9.
			Arizona	1	13.
			Illinois	1	5.
			Maine	1	21.
			New Hampshire	1	27.
			New Mexico	1	16.
			North Dakota	1	9.

Precipitation to equal or exceed 1.00 in 1 hour.

Louisiana	13	1, 3, 4, 7, 10, 11, 13, 14, 15-23.	Colorado	3	18, 30.
Kansas	12	8, 9, 10, 16, 17, 19, 20, 27, 29.	Iowa	3	5, 8, 23.
Alabama	11	2, 3, 5, 6-7, 10, 11, 12, 23, 31.	Massachusetts	3	6, 21, 27.
Florida	11	1, 4, 5, 9, 11, 15, 16, 19, 20, 21, 22, 31.	Missouri	3	5, 25.
Mississippi	10	2-6, 9, 12, 13, 17.	New York	3	9, 19, 27.
South Carolina ...	10	4, 6, 10, 13, 14, 18, 23, 27, 29.	Tennessee	3	3, 17, 26.
Georgia	9	1, 2, 3, 6, 13, 27, 30.	Texas	3	4, 20.
Nebraska	7	5, 10, 14, 15, 19, 26.	Wisconsin	3	4, 18, 22.
Arizona	5	5, 13, 14.	Arkansas	2	25.
Minnesota	5	15, 19, 23, 26.	Maryland	2	12, 20.
New Jersey	5	19.	New Hampshire	2	7.
Oklahoma	4	8-10, 12.	New Mexico	2	16, 19.
			North Carolina	2	12, 30.
			Ohio	2	3, 26.
			Virginia	2	17, 20.
			Illinois	1	5.
			Pennsylvania	1	20.

Table of excessive precipitation, August, 1893.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Day.
Alabama.					
Claiborne Landing				1.40	1 00
Demopolis				2.70	2 00
Ebia				3.70	3 00
Eufaula a				3.80	13-14
Eufaula c				3.91	13
Greensboro				2.94	13-14
Highland Home				1.40	1 00
Livingston b				1.82	1 45
Newbern				3.33	13-14
Newburg				1.87	1 30
Newton				4.05	2 00
Rock Mills				3.06	13
Sturdevant				3.00	5
Tallassee Falls				1.33	1 30
Tuscaloosa				1.44	0 45
Union Springs a	10.51				
Union Springs b	11.24				
Crittenden				1.58	1 10
Farleys Camp				2.70	13
Fort Huachuca				1.40	0 30
Holbrook				1.40	0 45
Natural Bridge				1.05	1 00
Tucson (W. B.)				1.30	1 15

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time
Arkansas.	Inches.	Inches.	11-12	Inches	h. m.
Arkansas City.....	4-40	4-40	.....	.....	.....
Brinkley.....	2-60	2-60	24	.....	.....
Gaines Landing.....	3-50	3-50	12	.....	.....
Hamburg.....	5-81	5-81	12	2-00	1 15 25
Hot Springs.....	4-45	4-45	10-11	1-00	1 00 25
Winslow.....	.....	.....	.....	.....	.....
Colorado.	.....	.....	.....	.....	.....
Byers.....	.....	.....	.....	2-00	2 00 30
Cheyenne Wells.....	.....	.....	.....	1-00	1 02 30
River Bend.....	.....	.....	.....	1-00	1 30 18
Rocky Ford.....	3-05	3-05	I	.....	.....
Springfield.....	2-60	2-60	I	.....	.....
Connecticut.	.....	.....	.....	.....	.....
Canton.....	2-68	2-68	24	.....	.....
Falls Village.....	2-74	2-74	23-24	.....	.....
Greenfield Hill.....	2-81	2-81	4-5	.....	.....
Do.....	2-82	2-82	23-24	.....	.....
New Hartford b.....	3-03	3-03	24	.....	.....
Norwalk.....	2-88	2-88	23-24	.....	.....
Stevenson.....	3-39	3-39	24-25	.....	.....
Waterbury.....	3-36	3-36	23-24	.....	.....
Florida.	.....	.....	.....	.....	.....
Amelia.....	10-50	4-80	27	.....	.....
Bristol.....	.....	.....	.....	1-10	1 00 31
Brooksville.....	.....	.....	.....	1-40	0 20 1
Federal Point.....	3-15	3-15	27	2-12	1 30 9
Gainesville.....	3-72	3-72	19	3-72	1 20 19
Green Cove Springs.....	2-60	2-60	27	.....	.....
Homeland.....	10-42	2-72	5	2-72	2 00 5
Do.....	.....	.....	.....	1-76	1 30 16
Jacksonville.....	10-02	3-62	27	1-11	1 00 1
Jupiter.....	4-47	4-47	20-21	2-35	0 30 20
Do.....	.....	.....	.....	2-12	0 20 21
Kissimmee.....	2-60	2-60	2	.....	.....
Pensacola.....	2-70	2-70	2-3	.....	.....
Plant City.....	11-10	.....	.....	1-01	1 00 11
Do.....	2-92	2-92	22	2-92	1 00 22
Saint Francis Barracks.....	4-20	4-20	26-27	.....	.....
Saint Petersburg.....	3-84	3-84	9	1-30	1 15 4
Do.....	.....	.....	.....	1-20	1 00 20
Tallahassee.....	.....	.....	.....	2-20	1 30 15
Tampa.....	2-61	2-61	9	.....	.....
Georgia.	.....	.....	.....	.....	.....
Americus.....	.....	.....	.....	1-50	1 00 2
Augusta.....	4-17	4-17	27-28	.....	.....
Brag.....	13-41	4-78	27-28	.....	.....
Cordele.....	.....	.....	.....	1-06	1 00 6
Darien.....	17-31	2-50	5-6	.....	.....
Do.....	5-07	5-07	27-28	.....	.....
Dublin.....	10-61	.....	.....	.....	.....
Forsyth.....	13-45	4-25	30-31	.....	.....
Hephzibah.....	3-40	3-40	27-28	1-73	1 10 30
Homerville.....	2-97	2-97	18	.....	.....
Louisville.....	3-97	3-97	31	1-17	0 45 1
Lumpkin.....	10-28	3-11	31	.....	.....
McArthur.....	10-30 ^b	10-30 ^b	2	2-15	1 50 30
Milledgeville.....	10-46	2-55	6	.....	.....
Monticello.....	3-55	3-55	4	.....	.....
Morgan.....	2-65	2-65	1	.....	.....
Newnan.....	2-56	2-56	1	.....	.....
Quitman.....	3-30	3-30	30-31	2-30	0 40 30
Resaca.....	.....	.....	.....	1-31	1 05 13
Rome.....	.....	.....	.....	1-93	1 00 3
Savannah.....	12-59	5-61	27-28	1-24	1 00 27
Talbotton.....	3-09	3-09	4	.....	.....
Waynesboro.....	3-18	3-18	27-28	.....	.....
West Point.....	10-71	.....	.....	.....	.....
Whiteburg.....	3-55	3-55	7	.....	.....
Illinois.	.....	.....	.....	.....	.....
Bushnell.....	4-02	4-02	5	4-02	1 00 5
Indian Territory.	.....	.....	.....	.....	.....
Lehigh.....	2-00	2-00	3	.....	.....
Purcell.....	3-87	3-87	2	.....	.....
Iowa.	.....	.....	.....	.....	.....
Centerville.....	2-50	2-50	15	.....	.....
Clarinda.....	5-60	5-60	14-15	.....	.....
College Springs.....	3-10	3-10	15	.....	.....
Corning.....	3-41	3-41	11	.....	.....
Do.....	2-75	2-75	14-15	.....	.....
Mechanicsville.....	.....	.....	.....	1-35	1 00 5
Murray.....	3-65	3-65	14-15	1-58	1 00 8
Sioux City.....	2-55	2-55	16	2-08	1 00 23
Villisca.....	.....	.....	.....	.....	.....
Kansas.	.....	.....	.....	.....	.....
Cawker City.....	.....	.....	.....	2-00	2 00 20
Fort Riley.....	4-00	4-00	15	1-36	1 00 20
Gibson.....	2-61	2-61	14-15	1-11	0 45 19
Horton.....	3-19	3-19	14-15	3-00	1 45 9
Independence.....	.....	.....	.....	2-02	0 40 17
Liberal.....	.....	.....	.....	1-74	1 00 19
Mariou.....	.....	.....	.....	1-72	1 20 27
Morton.....	2-50	2-50	19-20	.....	.....
Pleasant Dale.....	.....	.....	.....	1-36	1 00 20
Sedan.....	.....	.....	.....	1-11	0 45 19
Sharon Springs.....	3-00	3-00	9	3-00	1 45 9
Syracuse.....	.....	.....	.....	2-02	0 40 17
Tribune.....	.....	.....	.....	1-05	0 30 29
Wakefield.....	.....	.....	.....	2-05	1 07 16
Wallace b.....	.....	.....	.....	1-30	0 45 8
Wamego.....	.....	.....	.....	1-66	1 15 10

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		State and station.	Monthly rainfall to inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time			Amt.	Day.	Amt.	Day.
Washington.	Kansas—Continued.	Inches.	Inches.	Inches.	h. m.	Washington	Kansas—Continued.	Inches.	Inches.	Inches.	h. m.
Alexandria.....	3-40	3-40	14	.....	.....	Alexandria.....	3-40	3-40	14	.....	.....
Cheneyville.....	2-92	2-92	13-14	.....	.....	Cheneyville.....	2-92	2-92	13-14	.....	.....
Clinton.....	3-34	3-34	3	.....	.....	Clinton.....	3-34	3-34	3	.....	.....
Emilie.....	.....	.....	.....	.....	.....	Emilie.....	.....	.....	.....	.....	.....
Do.....	.....	.....	.....	.....	.....	Do.....	.....	.....	.....	.....	.....
Franklin.....	4-04	4-04	14	.....	.....	Franklin.....	4-04	4-04	14	.....	.....
Hamburg.....	4-00	4-00	1	.....	.....	Hamburg.....	4-00	4-00	1	.....	.....
Lake Charles.....	2-75	2-75	I	.....	.....	Lake Charles.....	2-75	2-75	I	.....	.....
Lawrence.....	3-85	3-85	10	.....	.....	Lawrence.....	3-85	3-85	10	.....	.....
Do.....	3-65	3-65	11-12	.....	.....	Do.....	3-65	3-65	11-12	.....	.....
New Iberia.....	.....	.....	.....	.....	.....	New Iberia.....	.....	.....	.....	.....	.....
Oxford.....	.....	.....	.....	.....	.....	Oxford.....	.....	.....	.....	.....	.....
Plaquemine.....	.....	.....	.....	.....	.....	Plaquemine.....	.....	.....	.....	.....	.....
Shell Beach.....	3-07	3-07	4-5	.....	.....	Shell Beach.....	3-07	3-07	4-5	.....	.....
Wallace.....	.....	.....	.....	.....	.....	Wallace.....	.....	.....	.....	.....	.....
Do.....	1-01	1-01	10	.....	.....	Do.....	1-01	1-01	10	.....	.....
Winnsboro.....	2-00	2-00	2	.....	.....	Winnsboro.....	2-00	2-00	2	.....	.....
Maine.	Eastport.	2.51	21	.....	.....	Maine.	2.51	21	.....	.....	.....
Maryland.	Boettcherille.....	3-00	28-29	.....	.....	Maryland.	3-00	28-29	.....	.....	.....
Cumberland a.....	2-60	2-60	28-29	.....	.....	Cumberland a.....	2-60	2-60	28-29	.....	.....
Cumberland b.....	2-65	2-65	28	.....	.....	Cumberland b.....	2-65	2-65	28	.....	.....
Fall River a.....	2-85	2-85	12	.....	.....	Fall River a.....	2-85	2-85	12	.....	.....
Fitchburg a.....	3-40	3-40	28-29	.....	.....	Fitchburg a.....	3-40	3-40	28-29	.....	.....
Fitchburg b.....	2-99	2-99	27	.....	.....	Fitchburg b.....	2-99	2-99	27	.....	.....
Hyannis.....	3-40	3-40	20-21	.....	.....	Hyannis.....	3-40	3-40	20-21	.....	.....
Lynn a.....	3-13	3-13	6	.....	.....	Lynn a.....	3-13	3-13	6	.....	.....
Mansfield.....	2-75	2-75	4-5	.....	.....	Mansfield.....	2-75	2-75	4-5	.....	.....
Milton.....	3-24	3-24	2-18	.....	.....	Milton.....	3-24	3-24	2-18	.....	.....
Monroe.....	3-09	3-09	24	.....	.....	Monroe.....	3-09	3-09	24	.....	.....
Nantucket.....	2-86	2-86	20-21	.....	.....	Nantucket.....	2-86	2-86	20-21	.....	.....
New Bedford b.....	2-74	2-74	20-21	.....	.....	New Bedford b.....	2-74	2-74	20-21	.....	.....
Plymouth.....	4-14	4-14	20-21	.....	.....	Plymouth.....	4-14	4-14	20-21	.....	.....
Provincetown.....	2-59	2-59	21	.....	.....	Provincetown.....	2-59	2-59	21	.....	.....
Roxbury.....	2-58	2-58	4-5	.....	.....	Roxbury.....	2-58	2-58	4-5	.....	.....
Salem.....	2-87	2-87	6-7	.....	.....	Salem.....	2-87	2-87	6-7	.....	.....
Somerset.....	2-82	2-82	20-21	.....	.....	Somerset.....	2-82	2-82	20-21	.....	.....
South Dennis.....	3-76	3-76	20-21	.....	.....	South Dennis.....	3-76	3-76	20-21	.....	.....
Taunton b.....	3-15	3-15	4-5	.....	.....	Taunton b.....	3-15	3-15	4-5	.....	.....
Do.....	2-53	2-53	20-21	.....	.....	Do.....	2-53	2-53	20-21	.....	.....
Taunton c.....	2-60	2-60	4-5	.....	.....	Taunton c.....	2-60	2-60	4-5	.....	.....
Do.....	3-78	3-78	20-21	.....	.....	Do.....	3-78	3-78	20-21	.....	.....
Taunton d.....	3-15	3-15	4-5	.....	.....	Taunton d.....	3-15	3-15	4-5	.....	.....
Woods Hole.....	4-45	4-45	20-21	.....	.....	Woods Hole.....	4-45	4-45	20-21	.....	.....
Minnesota.	Alexandria a.....	3-20	9-10	.....	.....	Minnesota.	Alexandria a.....	3-20	9-10	.....	.....
Carver.....	2-56	2-56	24	.....	.....	Carver.....	2-56	2-56	24	.....	.....
Collegeville.....	2-65	2-65	9	.....	.....	Collegeville.....	2-65	2-65	9	.....	.....
Fort Ripley.....	3-40	3-40	9	.....	.....	Fort Ripley.....	3-40	3-40	9	.....	.....
Lake Winnibigoshish.....	2-83	2-83	9-10	.....	.....	Lake Winn					

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
Missouri—Continued.						
Otoe	Inches.	Inches.	II	.....	.....	.....
Pickering		2.75		.....	.....	.....
Rea		4.93	14-15	.....	.....	.....
Saint Joseph		5.00	14-15	.....	.....	.....
Sublette		2.77	15-16	1.00	1 00	5
Unionville		3.43	15-16	.....	.....	.....
Nebraska.						
Arborville		5.21	14-15	1.06	0 45	26
Ashland		5.22	14-15	.....	.....	.....
Beatrice		2.55	15	.....	.....	.....
Crete		3.00	14-15	.....	.....	.....
Fairbury		3.30	14-15	.....	.....	.....
Geneva		4.06	14-15	.....	.....	.....
Lincoln		5.01	14-15	1.00	0 35	14
Omaha . . . . .		.....	.....	1.40	0 35	5
State Farm		4.35	14-15	1.30	1 00	19
Sutton		5.81	14-15	1.40	1 00	10
Do. . . . .		.....	.....	1.81	1 30	15
Syracuse		4.23	14-15	2.92	0 50	14
Table Rock		4.90	14-15	1.50	0 35	15
Do.		3.74	14-15	1.30	1 00	10
Weeping Water		2.85	15	.....	.....	.....
West Point . . . . .		.....	.....	.....	.....	.....
York . . . . .		.....	.....	.....	.....	.....
New Hampshire.						
Grafton . . . . .		.....	.....	2.35	1 50	7
Keene		3.15	27	1.40	1 00	7
New Jersey.						
Asbury Park		3.75	23-24	.....	.....	.....
Bayonne		2.80	19-20	.....	.....	.....
Belvidere		11.94	7-39	19-20	.....	.....
Beverly		3.03	23-24	.....	.....	.....
Boonton		2.50	23	.....	.....	.....
Camden		2.93	23-24	.....	.....	.....
Charlotteburg		3.54	23-24	.....	.....	.....
Chester		3.95	23-24	.....	.....	.....
Deckertown		5.17	23-24	.....	.....	.....
Dover		2.92	19-20	.....	.....	.....
Egg Harbor City		3.35	23-24	.....	.....	.....
Elizabeth		2.86	19-20	.....	.....	.....
Franklin Furnace		2.65	19-20	0.99	0 15	19
Do.		3.61	24	.....	.....	.....
Franklinville		2.89	23-24	.....	.....	.....
Freehold		3.53	23-24	.....	.....	.....
Gillette		2.90	20	.....	.....	.....
Do.		3.72	23-24	.....	.....	.....
Highland Park		2.81	12	1.95	0 50	19
Do.		2.60	23-24	.....	.....	.....
Hightstown		3.08	23-24	.....	.....	.....
Locktown		2.90	20	.....	.....	.....
Do.		3.38	23-24	.....	.....	.....
Millville		2.71	23-24	.....	.....	.....
Moorestown		3.05	23-24	.....	.....	.....
Newark a		3.38	19-20	.....	.....	.....
Newark b		3.91	19-20	.....	.....	.....
New Brunswick (W.B.)		2.82	12-13	.....	.....	.....
Do.		3.60	19-20	1.95	0 50	19
New Brunswick a		10.70	2.61	23-24	.....	.....
Do.		3.86	19-20	1.59	0 47	19
New Brunswick b		3.00	23-24	.....	.....	.....
Newton		11.17	2.96	23-24	.....	.....
Ocean City		3.40	23-24	.....	.....	.....
Oceanic		3.40	23-24	.....	.....	.....
Paterson		3.31	23-24	.....	.....	.....
Pensanken		4.23	23-24	.....	.....	.....
Plainfield		2.62	23-24	.....	.....	.....
Somerville		3.63	23-24	.....	.....	.....
Do.		3.91	19-20	2.00	0 30	19
South Orange		3.08	23-24	.....	.....	.....
Do.		2.61	19-20	.....	.....	.....
Tenafy		3.71	23-24	.....	.....	.....
Toms River		4.20	23-24	.....	.....	.....
Trenton		2.88	23-24	.....	.....	.....
Vineyard		2.76	23-24	.....	.....	.....
Woodbine		3.40	23-24	.....	.....	.....
New Mexico.						
East Las Vegas		3.10	16	2.47	1 00	16
Santa Fe . . . . .		.....	.....	1.98	1 42	19
New York.						
Albany		2.62	24	.....	.....	.....
Alfred Center		2.50	29	.....	.....	.....
Arcade		3.55	28-29	.....	.....	.....
Bovine Center		10.56	4.25	28-29	.....	.....
Buffalo		2.84	29	.....	.....	.....
Constableville		4.21	29	.....	.....	.....
Dunkirk		12.48	2.61	19-20	.....	.....
Easton		4.56	28-29	.....	.....	.....
Eden Center		3.30	28-29	.....	.....	.....
Fort Niagara		3.46	28-29	.....	.....	.....
Hess Road Station		2.89	24	.....	.....	.....
Honeymead Brook		3.82	23-24	.....	.....	.....
Humphrey . . . . .		.....	.....	.....	.....	.....
Kings Station		11.25	3.00	24	.....	.....
Lebanon Springs . . . . .		.....	.....	.....	.....	.....

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.			Rainfall 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.	
New York—Continued.							
Leroy	Inches.	2.80	29	.....	.....	.....	.....
Lockport		3.82	28-29	.....	.....	.....	.....
Lowville		4.38	29	.....	.....	.....	.....
Lyons		3.50	28	.....	.....	.....	.....
Madison Barracks		5.25	28-29	.....	.....	.....	.....
Malone		2.88	24	.....	.....	.....	.....
Middletown		3.04	23-24	.....	.....	.....	.....
Mount Morris		2.95	29	.....	.....	.....	.....
New Lisbon		1.26	1 00	27	.....	.....	.....
New York City		3.83	23-24	1.60	1 00	19	.....
North Hammond		4.40	29	.....	.....	.....	.....
Ogdensburg		2.75	28-29	.....	.....	.....	.....
Oswego		3.76	28-29	.....	.....	.....	.....
Potsdam		2.94	5-6	2.04	0 50	6	.....
Do.		3.10	29	.....	.....	.....	.....
Poughkeepsie		4.00	24	.....	.....	.....	.....
Rochester		4.19	28-29	.....	.....	.....	.....
Setauket		2.56	19-20	.....	.....	.....	.....
Turin		2.52	28-29	.....	.....	.....	.....
Varysburg		4.05	29	.....	.....	.....	.....
Wappingers Falls		3.23	24	.....	.....	.....	.....
Watertown		4.28	29	.....	.....	.....	.....
West Point		3.17	23-24	.....	.....	.....	.....
Willets Point		3.45	23	.....	.....	.....	.....
North Carolina.							
Bailey	Inches.	10.68	4.60	28	.....	.....	.....
Bakersville		2.90	13-14	.....	.....	.....	.....
Blowing Rock		4.93	28	.....	.....	.....	.....
Chapel Hill		3.53	27-28	.....	.....	.....	.....
Charlotte		14.39	3.40	14	.....	.....	.....
do.		5.75	28	.....	.....	.....	.....
Douglas		11.20	2.60	27-28	.....	.....	.....
Experimental Farm		10.15	3.55	14	.....	.....	.....
Flat Rock		3.73	28	.....	.....	.....	.....
Greensboro		10.75	4.06	28	.....	.....	.....
Hatteras		2.78	28	.....	.....	.....	.....
Highlands		12.35	5.34	13-14	.....	.....	.....
do.		4.11	30-31	.....	.....	.....	.....
Horse Cove		3.83	30-31	2.00	1 00	30	.....
Lenoir		4.00	28	.....	.....	.....	.....
Lynn		2.64	14	.....	.....	.....	.....
do.		3.41	27-28	.....	.....	.....	.....
Marion		4.75	27-28	.....	.....	.....	.....
Mocksville		11.22	2.67	28	.....	.....	.....
Morganton		4.50	27-28	.....	.....	.....	.....
Mount Airy		2.61	31	.....	.....	.....	.....
Mount Holly		2.51	27-28	.....	.....	.....	.....
do.		2.80	31	.....	.....	.....	.....
Mount Pleasant		3.58	27-28	.....	.....	.....	.....
Oak Ridge		3.86	27-28	.....	.....	.....	.....
Raleigh		2.78	28	.....	.....	.....	.....
Rockingham		10.16	3.20	28	.....	.....	.....
Roxboro		3.90	28	.....	.....	.....	.....
Salisbury		4.45	28	.....	.....	.....	.....
Saxon		10.87	2.68	1	.....	.....	.....
do.		3.33	28	.....	.....	.....	.....
Shelby		2.72	31	.....	.....	.....	.....
Sloan		3.75	27-28	.....	.....	.....	.....
Smithfield		11.79	4.47	1-2	.....	.....	.....
Soapstone Mount		2.58	28	.....	.....	.....	.....
Southern Pines		3.66	28	.....	.....	.....	.....
North Dakota.							
Forman		2.74	9	.....	.....	.....	.....
Ohio.							
Anadarko		2.76	29	.....	.....	.....	.....
Bentley		2.84	20	.....	.....	.....	.....
Hanging Rock . . . . .		.....	.....	2.00	2 00	26	.....
Jacksonville . . . . .		.....	.....	1.15	0 30	3	.....
Lowell		2.55	28-29	.....	.....	.....	.....
New Alexandria		3.67	29	.....	.....	.....	.....
Springboro		4.40	3-4	.....	.....	.....	.....

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall 10 inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		Day.
		Amt.	Day.	Amt.	Time.	
<i>Pennsylvania—Continued.</i>						
Pottstown	Inches.	Inches.	Inches.	h. m.		
Quakertown		4.75	19-20	1-35	1 15	20
Do.		2.59	23-24			
Seisholtsville		2.79	20			
Smethport		2.50	28-29			
Smiths Corners		3.23	20			
Uniontown		2.63	28-29			
Warren		3.18	28-29			
<i>South Carolina.</i>						
Allendale	12.71	3.20	27-28	2.00	1 30	27
Batesburg	13.06	5.70	27-28			
Blackburg	11.57	3.36	26			
Do.		5.93	27-28			
Blackville	10.09	6.88	27-28			
Brewer Mine	13.99	5.20	26			
Do.		5.34	30			
Camden		4.67	27-28			
Charleston	15.53	3.80	27-28	1.26	0 39	14
Cheraw <i>a</i>	14.41	2.74	4-5			
Do.		4.44	23			
Cheraw <i>b</i>	16.69	5.06	28-29			
Do.		5.06	23-24	4.46	4 00	23
Columbia		4.44	27-28			
Connors	22.26	4.60	27-28			
Do.		12.40	27-28			
Cross Hill		5.03	29-31			
Davis Bridge	16.53	4.38	27-28			
Do.		3.74	6	3.74	2 00	6
Effingham	15.44	7.02	27-28			
Flint Hill		6.45	27-28			
Florence	14.17	4.70	27-28			
Do.		3.54	27-28			
Georgetown	18.45	2.75	29-30			
Do.		4.05	27			
Hampton	14.50	2.50	29			
Hardeeville	24.67	5.95	27-28			
Do.		5.50	2-4	2.35	1 30	4
Do.		3.83	10-11	3.23	2 15	10
Kingtree	11.26	6.40	27-28	1.75	1 00	13
Kitchens Mills	14.55	4.00	27-28			
Do.		3.44	18			
Do.		4.15	27-28			
Longshore	11.99	4.00	30-31			
Manning	17.61	4.69	27-28			
Martins	12.23	3.22	27-28			
Do.		3.12	5			
Nichols		5.20	27-28			
Pinopolis	18.88	3.61	27-28			
Do.		6.00	27-28			
Port Royal	13.71	4.10	30			
Saint Georges	20.45 ^b	2.57	1			
Do.		10.15 ^b	26-27			
Saint Matthews	12.48	2.97	30-31			
Saint Stephens	24.24	4.37	27-28	1.44	0 45	18
Do.		3.62	13-14			
Do.		8.28	27-28			
Sedalia	11.48	4.10	30			
Simpsonville		4.70	28			
Society Hill	12.20	2.83	28			
Do.		2.90	22			
Spartanburg	10.77	3.41	27-28			
Statesburg	14.29	4.82	14			
Tillers Ferry <i>a</i>	14.61	6.74	27-28	1.49	1 10	6
Do.		5.33	2-3	1.41	1.18	29
Tillers Ferry <i>b</i>	12.45	3.80	27-28			
Trenton	13.20	2.97	27-28			
Trial	15.35	5.59	27-28	1.42	0 20	18
Do.		6.07	27-28	2.20	1 00	14
Wateree	18.87	4.26	13-14			
Do.		6.96	27-28			
Watts		3.03	14			
Yorkville		8.45	27-28			
Younga Island	16.85 ^a	2.66	14			
<i>Tennessee.</i>						
Ashwood		5.63	27-28			
Clarksville		3.65	5			
Greenville		3.05	5			
Tullahoma		8.35	3	8.35	5 00	3
Ridgeton	11.17	4.00	3			
Wier		2.75	17			
<i>Texas.</i>						
Eastland		2.70	4			
Forestburg		2.78	7			
Laredo		6.38	9			
McGregor		1.26	1 00			
Orange		2.93	15			
Silver Falls		1.82	0 35			
Stella		2.75	4-5	2.05	0 35	4
<i>Vermont.</i>						
Burlington		2.50	7			
Wells		3.04	7			
<i>Virginia.</i>						
Bedford City		2.92	28			
Birdsnett		1.40	1 05			
Buchanan		5.10	28			
Christiansburg		4.06	28			
Do.		2.69	31			
Columbia		2.50	4			

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall 10 inches, or more.	Rainfall 2-50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		Day.
		Amt.	Day.	Amt.	Time.	
<i>Virginia—Continued.</i>						
Columbia	Inches.	Inches.	Inches.	h. m.		
Dale Enterprise		4.22				
Lexington		2.93				
Lynchburg		2.51				
Do.		2.89				
Norfolk		1.28				
Nottoway		4.03				
Petersburg		2.90				
Riverton		2.80				
Stanardsville		4.13				
Wytheville		4.30				
<i>West Virginia.</i>						
Bluefield		3.95				
Elkhorn		2.72				
New Cumberland		3.38				
Parkersburg (W. B.)		3.22				
Pleasant Hill		2.56				
Wheeling <i>a</i>		3.30				
Wheeling <i>b</i>		3.55				
<i>Wisconsin.</i>						
Ashland		2.99				
Estella		2.01				
Do.		2.00				
Neillsville		1.35				
Sparta		3.27				
<i>Received too late for publication in July, 1893.</i>						
<i>Alabama.</i>						
Newbern		1.80				
Uniontown		3.91				
<i>Kansas.</i>						
Elk City		1.37				
<i>South Carolina.</i>						
Manning		1.02				
<i>Tennessee.</i>						
Covington <i>b</i>		1.39				
* Estimated, gauge blown down.						
† July 31.						
MAXIMUM RAINFALL IN ONE HOUR OR LESS.						
The following table is a record of the heaviest rainfall during August, 1893, for periods of five and ten minutes and one hour, as reported by regular stations of the Weather Bureau furnished with self-registering gauges:						
Station.	Maximum fall in—					
	5 min.	Date.	10 min.	Date.	1 hour.	Date.
	Inch.		Inch.		Inch.	
Atlanta, Ga.	0.20	30	0.35	2,30	0.71	30
Baltimore, Md.	0.25	29	0.40	29	0.50	29
Bismarck, N. Dak.	0.02	22	0.03	22	0.12	22
Boston, Mass.	0.37	6	0.70	6	1.07	6
Buffalo, N. Y.	0.30	28	0.40	28	0.60	28
Cincinnati, Ohio	0.06	28	0.10	28	0.20	28
Chicago, Ill.						
Cleveland, Ohio	0.12	12	0.17	12	0.33	28
Denver, Colo.	0.05	21	0.10	21	0.24	21
Detroit, Mich.	0.13	11	0.23	11	0.38	11
Dodge City, Kans.	0.21	19	0.39	19	0.82	19
Duluth, Minn.	0.06	9	0.08	10	0.25	10
Eastport, Me.	0.07	21	0.13	21	0.64	31
Galveston, Tex.	0.29	25	0.48	25	0.95	13
Indianapolis, Ind.	0.10	16	0.12	16	0.19	16
Jacksonville, Fla.	0.25	6,9	0.45	1	1.11	1
Jupiter, Fla.	0.50	21	0.95	21	2.35	20
Kansas City, Mo.	0.10	11	0.12	11, 27	0.25	27
Key West, Fla.	0.21	31	0.34	31	0.45	31
Marquette, Mich.	0.13	24	0.18	24	0.35	24
Memphis, Tenn.	0.14	14	0.23	14	0.25	14
Milwaukee, Wis.	0.08	11	0.12	11	0.20	24
New Orleans, La.	0.19	1	0.25	1	0.65	1
New York, N. Y.	0.35	19	0.50	19	1.60	19
Norfolk, Va.	0.32	26	0.45	20	0.99	20
Omaha, Nebr.	0.50	14	0.80	14	1.00	14
Philadelphia, Pa.	0.04	24	0.07	24	0.25	24
Pittsburg, Pa.						
Portland, Me.	0.10	29	0.15	29	0.31	29
Portland, Oregon [*]						
Saint Louis, Mo.	0.02	11	0.04	11	0.10	11
Saint Paul, Minn.	0.50	23	0.70	23	1.10	23
Salt Lake City, Utah	0.12	13	0.20	13	0.22	13
San Diego, Cal. [*]						
San Francisco, Cal. [*]						
Savannah, Ga. [*]	0.37	20	0.58	14	1.24	27
Tampa, Fla.	0.20	29	0.35	29	0.55	29
Washington, D. C.	0.17	28	0.25	28	0.92	28
Wilmington, N. C.	0.25	4	0.45	6	0.78	6, 30

* Less than 0.05 in 1 hour.

† Self-register out of order.

‡ Record incomplete.

The following tables show the number of years for which monthly precipitation to equal or exceed 10.00 inches, daily precipitation to equal or exceed 2.50 inches, and hourly precipitation to equal or exceed 1.00 inch has been reported in the several states and territories for August during the last 24 years:

Excessive monthly precipitation.

State.	No. years noted.	State.	No. years noted.
Florida.....	20	Wisconsin	3
North Carolina.....	18	Kentucky	2
Georgia.....	17	Mississippi	3
South Carolina.....	11	Arkansas.....	2
Alabama.....	11	Delaware.....	2
New York.....	10	Maine.....	2
Virginia.....	9	West Virginia.....	2
Texas.....	8	Arizona.....	1
Louisiana.....	8	Colorado.....	1
Kansas.....	7	The Dakotas.....	1
New Hampshire.....	7	District of Columbia.....	1
New Jersey.....	7	Minnesota.....	1
Illinois.....	6	New Mexico.....	1
Indiana.....	6	Vermont.....	1
Iowa.....	6	California.....	1
Massachusetts.....	6	Indian Territory.....	1
Connecticut.....	5	Idaho.....	1
Ohio.....	5	Saint Georges, S. C. J.	1
Pennsylvania.....	5	Granbury, Tex.....	1
Missouri.....	5	Bartonsville, Fla.....	1
Tennessee.....	5	Hatteras, N. C.....	1
Maryland.....	4	Tecumseh, Nebr.....	1
Michigan.....	3	Ellsworth, N. C.....	1
Nebraska.....	3	New Orleans, La.....	1

Excessive daily precipitation (24 hours).

State.	No. years noted.	State.	No. years noted.
Georgia.....	22	New Jersey	12
Texas.....	21	Nebraska	10
Florida.....	20	Indiana.....	9
North Carolina.....	20	Maryland.....	9
South Carolina.....	19	New Hampshire.....	9
Pennsylvania.....	17	Indian Territory.....	7
Iowa.....	16	West Virginia.....	6
Missouri.....	16	Arizona.....	4
New York.....	16	Delaware.....	4
Tennessee.....	16	Kentucky.....	4
Massachusetts.....	15	Rhode Island.....	4
Illinois.....	15	Vermont.....	3
Mississippi.....	14	Maine.....	3
Alabama.....	14	Montana.....	2
Ohio.....	14	Colorado.....	1
Kansas.....	14	California.....	1
Wisconsin.....	14	New Mexico.....	1
Connecticut.....	13	District of Columbia.....	1
The Dakotas.....	13	Idaho.....	1
Arkansas.....	13	Nevada.....	1
Louisiana.....	13	Oregon.....	1
Virginia.....	13	Utah.....	1
Michigan.....	12	Washington.....	1
Minnesota.....	12	Wyoming.....	1

Excessive hourly precipitation.

State.	No. years noted.	State.	No. years noted.
Texas.....	18	New Jersey	9
Florida.....	16	Kentucky	5
Georgia.....	16	Colorado	5
Tennessee.....	15	Massachusetts	5
Pennsylvania.....	14	New Hampshire	5
Kansas.....	14	Wisconsin	5
Ohio.....	14	Connecticut	5
North Carolina.....	13	New Mexico	5
Iowa.....	12	Maine.....	5
South Carolina.....	12	Montana.....	4
Virginia.....	12	Rhode Island.....	4
Michigan.....	11	Minnesota.....	4
Nebraska.....	11	Indian Territory.....	4
The Dakotas.....	10	West Virginia.....	3
Illinois.....	10	District of Columbia.....	3
Indiana.....	9	Vermont.....	3
New York.....	9	California	3
Mississippi.....	9	Delaware.....	3
Maryland.....	8	Washington.....	3
Louisiana.....	8	Idaho.....	3
Arkansas.....	7	Nevada.....	3
Missouri.....	7	Oregon.....	3
Arizona.....	6	Utah.....	3
Alabama.....	6	Wyoming.....	3

The following tables give exceptionally heavy monthly, daily, and hourly precipitation reported for August during the last 24 years:

Monthly.

Station and state.	Am't.	Year.	Station and state.	Am't.	Year.
<i>Inches.</i>					

Fort Barrancas, Fla.....	30.73	1878	Charleston, Ill.....	23.04	1882
Asheville, N. C.....	26.65	1887	New Smyrna, Fla.....	23.00	1871
Ellsworth, N. C.....	26.33	1880	New Orleans, La.....	22.74	1888
Fort Barrancas, Fla.....	25.07	1870	Tarboro, N. C.....	22.73	1887
Hardeeville, S. C.....	24.67	1883	Saint Augustine, Fla.....	21.50	1871
Maurepas, La.....	23.44	1888	Fairview, Fla.....	21.35	1871
Newport, Fla.....	23.25	1872	Saint Georges, S. C. J.	20.45	1893

† Estimated, gauge blown down.

Daily (24 hours).

Station and state.	Amount.	Date.	Station and state.	Amount.	Date.
<i>Inches.</i>					

Manning, S. C.....	13.22	27-28, 1893	Trenton, S. C.....	6.07	27-28, 1893
Connors, S. C.....	12.40	27-28, 1893	Pinopolis, S. C.	6.00	27-28, 1893
Campo, Cal. *	11.50	12, 1891	Hazlehurst, Miss.....	6.00	27, 1890
Griffin, Ga.....	10.38	8, 1883	Phillips, Wis.....	6.00	8, 1890
Saint Georges, S. C. J.	10.15	26-27, 1893	Hampton, S. C.....	5.95	27-28, 1893
Granbury, Tex.....	10.15	26, 1888	Clarksville, Tenn.....	5.90	20, 1891
Bartonsville, Fla.....	9.75	29, 1878	Hamburg, S. C.....	5.81	12, 1893
Hatteras, N. C.....	9.14	23, 1890	Rockville, Nebr.....	5.81	14-15, 1893
Tecumseh, Nebr.....	9.00	12, 1889	Columbia, S. C.....	5.75	28, 1890
Ellsworth, N. C.....	9.00	4, 1880	Batesburg, S. C.....	5.70	27-28, 1893
New Orleans, La.....	8.90	20, 1888	Yorkville, S. C.....	5.68	27-28, 1893
Mandeville, La.....	8.54	8, 1888	Darien, Ga.....	5.67	27-28, 1893
Cape May, N. J.....	8.46	18, 1879	Savannah, Ga.....	5.61	27-28, 1893
Wateree, S. C.....	8.45	27-28, 1893	Clarinda, Iowa.....	5.60	14-15, 1893
Ridderline, Tenn.....	8.35	3, 1893	Tillers Ferry, S. C. b.	5.59	27-28, 1893
Stephens, S. C.....	8.28	27-28, 1893	Birdsneck, Va.....	5.55	21-22, 1892
Kittyhawk, N. C.....	8.14	15, 1883	Camp Eagle Pass, Tex.....	5.50	2, 1891
Vesper, Kans.....	8.10	19, 1890	Sugar Ex. Station, La.....	5.48	15, 1892
Grantsburg, Wis.....	7.75	19-20, 1888	Washington, Ga.....	5.40	26, 1891
Johnstown, Va.....	7.70	18, 1879	Highlands, N. C.....	5.34	13-14, 1893
Marshall, Mo.....	7.48	18-19, 1891	Tillers Ferry, S. C. a.	5.33	2-3, 1893
Belvidere, N. J.....	7.39	19-20, 1893	Madison B'ks, N. Y.....	5.22	14-15, 1893
Davis Bridge, S. C.....	7.02	22, 1891	Ashland, Nebr.....	5.21	14-15, 1893
Central City, Ky.....	7.02	27-28, 1893	Brewer Mine, S. C.....	5.20	28, 1893
Trial, S. C.....	6.96	27-28, 1893	Deckertown, N. J.....	5.17	23-24, 1893
Blackville, S. C.....	6.86	27-28, 1893	Fort Smith, Ark.....	5.10	19-20, 1890
Statesburg, S. C.....	6.74	27-28, 1893	Buckhannon, W. Va.....	5.10	28, 1893
Union Point, Ga.....	6.60	26-27, 1891	Cheraw, S. C.....	5.06	23-24, 1893
Carson, Iowa.....	6.50	9, 1889	Lillington, N. O.....	5.02	22-23, 1891
Effingham, S. C.....	6.45	27-28, 1893	Thomasville, Ga.....	5.02	15-16, 1892
Hardeeville, S. C.....	6.40	27-28, 1893	State Farm, Nebr.....	5.01	14-15, 1893
North Hammond, N. Y.....	6.40	26, 1893	Rea, Mo.....	5.00	14-15, 1893
Laredo, Tex.....	6.38	9, 1893			
Chicago, Ill.....	6.33	2-3, 1895			

* Cloudburst; rainfall not all measured.

† Estimated, gauge blown down.

One hour and less.

Station and state.	Amount.	Time.
<i>Inches. h. m.</i>		

One hour and less—Continued.

Station and state.	Amount.	Time.	Date.
Jupiter, Fla.	0.30	0 05	14, 1892
New York, N. Y.	0.30	0 05	23, 1891
Buffalo, N. Y.	0.30	0 05	28, 1893
Washington, D. C.	0.30	0 05	1, 1890
Norfolk, Va.	0.30	0 05	26, 1891
Galveston, Tex.	0.29	0 05	25, 1893
Eastport, Me.	0.27	0 05	5, 1892
Indianapolis, Ind.	0.25	0 05	19, 1892
Baltimore, Md.	0.25	0 05	29, 1893
Jacksonville, Fla.	0.25	0 05	6, 1893
Do	0.25	0 05	9, 1893
Wilmington, N. C.	0.25	0 05	30, 1892
Jupiter, Fla.	0.25	0 10	21, 1893
Boston, Mass.	0.20	0 10	12, 1892
Jacksonville, Fla.	0.20	0 10	31, 1892
Tampa, Fla.	0.20	0 10	9, 1892
Omaha, Nebr.	0.20	0 10	14, 1893
Galveston, Tex.	0.20	0 10	4, 1890
Boston, Mass.	0.15	0 10	6, 1893
Saint Paul, Minn.	0.20	0 10	23, 1893
Atlanta, Ga.	0.20	0 10	1, 1892
Dodge City, Kans.	0.20	0 10	9, 1892
Key West, Fla.	0.20	0 10	30, 1891
New York, N. Y.	0.20	0 10	4, 1888
Savannah, Ga.	0.20	0 10	14, 1893
Norfolk, Va.	0.20	0 10	31, 1892
Bismarck, N. Dak.	0.20	0 10	27, 1892
Cleveland, Ohio	0.20	0 10	19, 1892
Saint Louis, Mo.	0.20	0 10	7, 1892
Jupiter, Fla.	0.20	0 10	14, 1892
New York, N. Y.	0.20	0 10	19, 1893
Salisbury, N. C.	0.20	0 10	13, 1888
Franklin Furnace, N. J.	0.20	0 15	19, 1893
Charleston, S. C.	0.20	0 15	9, 1890
Lead Hill, Ark.	0.20	0 15	2, 1882
Jupiter, Fla.	0.20	0 15	21, 1893
Trenton, S. C.	0.20	0 20	18, 1893
Brooksville, Fla.	0.20	0 20	1, 1893
Escanaba, Mich.	0.20	0 20	11, 1877
Marksville, La.	0.20	0 20	27, 1892
Albany, N. Y.	0.20	0 20	2, 1878
Fox Creek, Mo.	0.20	0 20	25, 1893
Glenville, W. Va.	0.20	0 20	12, 1892
Nashville, Tenn.	0.20	0 20	17, 1891
Emporium, Pa.	0.20	0 20	5, 1890
Parkersburg, W. Va.	0.20	0 20	1, 1890
Mossing Ford, Va.	0.20	0 20	2, 1890
Abilene, Tex.	0.20	0 23	29, 1892
Louisville, Ky.	0.20	0 24	20, 1878
Hardin, Colo.	0.20	0 25	13, 1892
Galveston, Tex.	0.20	0 25	17, 1871
Ithaca, N. Y.	0.20	0 25	4, 1892
Colorado Springs, Colo.	0.20	0 30	14, 1890
Mesquite, Tex.	0.20	0 30	10, 1875
Jupiter, Fla.	0.20	0 30	28, 1893
Stella, Tex.	0.20	0 30	4, 1893
Lebo, Kans.	0.20	0 30	22, 1892
Somerville, N. J.	0.20	0 30	19, 1893
Wellsville, Pa.	0.20	0 30	21, 1895
Montevideo, Minn.	0.20	0 30	19, 1893
Vevay, Ind.	0.20	0 30	13, 1879
Grantsburg, Wis.	0.20	0 30	7, 1890
Manistee, Mich.	0.20	0 30	8, 1892
Emilie, La.	0.20	0 30	7, 1893
Queensbury, N. Y.	0.20	0 30	14, 1890
Mount Auburn, Ohio.	0.20	0 30	26, 1880
Providence, R. I.	0.20	0 35	6, 1878
Auburn, N. H.	0.20	0 35	27, 1877
Hulmeville, Pa.	0.20	0 35	25, 1880

One hour and less—Continued.

Station and state.	Amount.	Time.	Date.
Pittsburg, Pa.	1.85	0 35	16, 1884
Cincinnati, Ohio.	1.85	0 35	27, 1882
Silver Falls, Tex.	1.82	0 35	20, 1893
Quitman, Ga.	2.30	0 40	30, 1893
Sharon Springs, Kans.	2.00	0 40	20, 1892
Jacksonville, Fla.	3.72	0 41	20, 1873
Philo, Ill.	2.63	0 45	5, 1892
Hudson, Wis.	2.50	0 45	11, 1891
Detroit, Mich.	2.48	0 45	31, 1878
Sandusky, Ohio.	0.25	0 45	24, 1892
Charlotte, N. C.	2.01	0 45	3, 1890
Weldon, N. C.	3.43	0 50	22, 1892
Fort Union, N. Mex.	2.34	0 50	12, 1883
Bushnell, Ill.	4.02	1 00	5, 1893
Princeton, Mo.	4.00	1 05	15, 1891
Campo, Cal.	11.50	1 20	12, 1891
Plover, Wis.	4.50	1 30	3, 1890

† Record incomplete.

HAIL.

Description of the more severe hailstorms reported for the month is given under "Local storms."

Hail was reported as follows: 1st, Colorado, Florida, and Texas. 3d, Ohio. 4th, Arizona, Colorado, Ohio, Pennsylvania, and Wisconsin. 5th, Colorado, Illinois, Maryland, Missouri, and Nebraska. 6th, Colorado, Maryland, Massachusetts, New Hampshire, New Jersey, Pennsylvania, and Tennessee. 7th, Massachusetts, New Hampshire, Texas, and Utah. 8th, Colorado, Iowa, Minnesota, Mississippi, New Mexico, Texas, and Wisconsin. 9th, Colorado, North Dakota, and South Dakota. 10th, Colorado, Iowa, Kansas, Missouri, Texas, and Wisconsin. 11th, Arkansas and Nevada. 12th, South Dakota and Utah. 13th, Arizona and Idaho. 14th, Colorado and Nebraska.

15th, Colorado. 16th, Colorado, Minnesota, Oregon, and Utah. 17th, Kansas, Minnesota, Nebraska, Pennsylvania, and Wisconsin. 18th, Colorado and Michigan. 19th, Colorado, Idaho, Kansas, Michigan, Minnesota, Nebraska, New Jersey, Pennsylvania, and South Dakota. 20th, Minnesota. 21st, Colorado, Iowa, Minnesota, New Mexico, and Texas. 23d, Colorado, Minnesota, and South Dakota. 24th, Connecticut, Michigan, Minnesota, and Wisconsin. 25th, Colorado, Kentucky, Missouri, New York, and Tennessee. 26th, Minnesota, Nebraska, and South Dakota. 27th, Michigan, Minnesota, Nebraska, New York, and Vermont. 28th, Colorado and South Dakota. 29th, California, Colorado, Iowa, Massachusetts, and New Mexico. 30th, Colorado and New Mexico. 31st, Idaho and Utah.

WINDS.

The prevailing winds in August, 1893, are shown on Chart II by arrows flying with the wind. In New England and on the northeast slope of the Rocky Mountains the winds were generally from southwest to northwest; in the middle and south Atlantic states and the Ohio Valley and Tennessee, northeast; in the Florida Peninsula, southeast to southwest; in the west Gulf states, the Missouri Valley, and on the southeast slope of the Rocky Mountains, southeast to south; on the Pacific coast, west to northwest; in the Lake region, the extreme northwest, and the upper Mississippi valley, variable.

HIGH WINDS.
(In miles per hour.)

Wind velocities of 50 miles, or more, per hour were reported at regular stations of the Weather Bureau as follows:

10th, 63, sw., at Des Moines, Iowa; 56, s., at Kearney, Nebr.

12th, 59, w., at Pikes Peak, Colo. 14th, 52, w., at Fort Buford, N. Dak.; 52, s., at Amarillo, Tex. 18th, 50, se., at Huron, S. Dak. 21st, 72, ne., at Block Island, R. I.; 60, n., at Woods Holl, Mass.; 52, ne., at Nantucket, Mass. 23d, 70, ne., at Kittyhawk, N. C.; 60, n., at Hatteras, N. C.; 52, ne., at Atlantic City, N. J.; 50, nw., at Sioux City, Iowa. 24th, 55, ne., at Philadelphia, Pa.; 54, s., at New London, Conn.; 52, e., at Woods Holl, Mass. 27th, 88, e., at Charleston, S. C.; 72, ne., at Savannah, Ga.; 55, w., at Titusville, Fla.; 53, s., at Southport, N. C. 28th, 96, e., at Charleston, S. C.; 72, s., at Southport, N. C.; 52, ne., at Augusta, Ga.; 50, ne., at Chicago, Ill.; 50, s., at Kittyhawk, N. C.; 50, sw., at Savannah, Ga. 29th, 59, s., at Woods Holl, Mass.; 57, s., at New Haven, Conn.; 57, se., at New London, Conn.; 54, se., at New York, N. Y.; 51, n., at Oswego, N. Y.; 50, s., at Kittyhawk, N. C. 31st, 55, e., at Tatoosh Island, Wash.